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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,217	08/29/2001	Norihiko Shinomiya	FUJH 18.965	6926

26304 7590 06/22/2006

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EXAMINER
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CONTINO, PAUL F

ART UNIT	PAPER NUMBER
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2114

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/942,217	Applicant(s) SHINOMIYA ET AL.	
	Examiner Paul Contino	Art Unit 2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 3-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,4,8 and 11 is/are allowed.
- 6) ☒ Claim(s) 5-7,9,10,12 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION: Final Rejection**

*Response to Arguments*

1. Applicant's arguments with respect to claims 5-7, 9, 10, and 12 have been considered but are moot in view of the new ground(s) of rejection.

*Claim Objections*

2. Claim 13 is objected to because of the following informalities: line 2 states "transfer time of failure notification" where "the failure notification" is more appropriate. Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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3. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Weil et al. (U.S. PGPub 2002/0093954).

As in claim 12, Weil et al. discloses a protecting route design method for designing protecting route information on a protecting route, and presetting the designed protecting route information in a plurality of nodes provided in a communication network (*paragraphs [0032], [0061], and [0081]*), before occurrence of a link or node failure in the communication network (*paragraphs [0038]-[0039]*), wherein the plurality of nodes switch over in parallel from a working route to the protecting route on the basis of the protecting route information present in the plurality of nodes when link or node failure occurs, according to a failure notification message including failure location information, transmitted from a failure detection node to each of the plurality of nodes (*paragraphs [0055], [0057], and [0061]*), the protecting route design method comprising the steps of:

searching by a network management system, provided in the communication network, for a preliminary protection route, the preliminary protecting route for minimizing transfer time of the failure notification message which is transmitted from a node detecting link or node failure (*paragraph [0039]*);

updating the searched preliminary protecting route to the protecting route having a spare communication capacity sharable for a different failure (*paragraph [0064]*), the protecting route having a route switchover time to be completed within a given time limit (*paragraph [0101]*);  
and

presetting the protecting route information on the updated protecting route in the plurality of nodes (*paragraphs [0081] and [0083]*), the protecting route information including the failure location information associated with an identifier of the corresponding protecting route, the failure location information indicating a location of the link or node failure in the communication network (*paragraph [0061]*).

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-7, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weil et al. in view of Chow et al. (U.S. Patent No. 5,495,471).

As in claim 5, Weil et al. teaches the limitations of claim 12. However, Weil et al. fails to teach the remainder of the limitations of claim 5. Chow et al. teaches wherein a restoration time of the protecting route is obtained by calculating a summation of the transfer time of failure notification message to each node and a switchover time to the protecting route in each node, then by extracting the maximum value of the summation for entire nodes along the protecting route (*column 20 lines 40-59*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the summation as taught by Chow et al. in the invention of Weil et al. This would have been obvious because the invention of Chow et al. reduces the amount of time and bandwidth necessary to recover from a fault in a protected network (*column 4 lines 48-51 and column 5 lines 34-38*).

As in claim 6, Weil et al. teaches the limitations of claim 12. However, Weil et al. fails to teach the remainder of the limitations of claim 6. Chow et al. teaches another protecting route is searched excluding a link which has not any sharable spare communication capacity between the end nodes of the route, so as to reduce a total spare communication capacity and a route search time (*column 15 line 48 through column 16 line 2*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the searching as taught by Chow et al. in the invention of Weil et al. This would have been obvious because the invention of Chow et al. reduces the amount of time and bandwidth necessary to recover from a fault in a protected network (*column 4 lines 48-51 and column 5 lines 34-38*).

As in claim 7, Weil et al. teaches the limitations of claim 12. However, Weil et al. fails to teach the remainder of the limitations of claim 7. Chow et al. teaches another protecting route is searched affording priority to a link having a large sharable spare communication capacity between the end nodes of the route, so as to reduce a total spare communication capacity and a

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route search time (*column 13 lines 56-66, where the selection of the restored path based upon bandwidth implies priority of a large sharable spare communication capacity*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the link priority as taught by Chow et al. in the invention of Weil et al. This would have been obvious because the invention of Chow et al. reduces the amount of time and bandwidth necessary to recover from a fault in a protected network (*column 4 lines 48-51 and column 5 lines 34-38*).

As in claim 10, Weil et al. teaches the limitations of claim 12. However, Weil et al. fails to teach the remainder of the limitations of claim 10. Chow et al. teaches calculation of a transfer time of a failure notification message is selectively employed depending on a topology or a scale of an object communication network, a node equipment specification, and a communication system (*column 20 lines 40-51, where it is inherent that the time  $T$  required to complete a path and the time  $t$  required to process a message is dependent upon the overall communication system including the scale of a network and the node equipment utilized by the network*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the calculation as taught by Chow et al. in the invention of Weil et al. This would have been obvious because the invention of Chow et al. reduces the amount of time and bandwidth necessary to recover from a fault in a protected network (*column 4 lines 48-51 and column 5 lines 34-38*).

As in claim 13, Weil et al. teaches the limitations of claim 12. However, Weil et al. fails to teach the remainder of the limitations of claim 13. Chow et al. teaches the transfer time of [the] failure notification message from the failure detection node is calculated from a summation of a transmission delay time of the failure notification message being transmitted on communication links and an input and output processing time of the failure notification message processed in the each node (*column 20 lines 40-51*).

It would have been obvious to a person skilled in the art at the time the invention was made to have included the summation as taught by Chow et al. in the invention of Weil et al. This would have been obvious because the invention of Chow et al. reduces the amount of time and bandwidth necessary to recover from a fault in a protected network (*column 4 lines 48-51 and column 5 lines 34-38*).

\* \* \*

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weil et al. in view of Suzuki (U.S. Patent No. 6,289,096 B1).

As in claim 9, Weil et al. teaches the limitations of claim 12. However, Weil et al. fails to teach the remainder of the limitations of claim 9. Suzuki teaches another protecting route is searched excluding a node at which a transfer time of the failure notification message exceeds a predetermined restoration time, so as to reduce a route search time (*column 3 lines 3-13*).



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It would have been obvious to a person skilled in the art at the time the invention was made to have included the excluding of a node as disclosed by Suzuki in the invention of Weil et al. This would have been obvious because the invention of Suzuki minimizes the cost of network communication (*column 1 lines 55-60*).

***Allowable Subject Matter***

6. Claims 3, 4, 8, and 11 are allowed.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Contino whose telephone number is (571) 272-3657. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PFC  
6/20/2006

  
**SCOTT BADERMAN**  
**SUPERVISORY PATENT EXAMINER**